

XLVII.—Some Additions to the Genera and Species in the Homopterous Family Fulgoridæ. By W. L. DISTANT.

Fam. Fulgoridæ.

Subfam. FULGORINÆ.

Fulgora astarte, sp. n.

Cephalic process, head, and thorax above piceous, the first finely cretaceously maculate and with its apex pale sanguineous, the thorax above more or less cretaceously pubescent; abdomen, body beneath, and legs brownish ochraceous, the abdominal segmental margins paler; tegmina black, with the veins and numerous reticulations green, the whole surface more or less cretaceously pubescent, with numerous dull testaceous spots with greyish-white margins arranged in five more or less regular transverse series and with a cluster of similar but much smaller spots on the apical area; wings greyish with a slight bluish suffusion, the apical area black; cephalic process measured from angle of apex to eyes a little longer than abdomen, upwardly recurved, its apex robust, but only very slightly dilated.

Length ceph. process, angle from apex to eyes 15–19 mm.; eyes to apex of abdomen 19–23 mm.; exp. tegm. 73–84 mm.

Hab. Indo-China, Laokay (*R. Vitalis de Salvaza*, type Brit. Mus.).

Allied to *F. regersi*, Dist., from the Nicobar Islands, but with the cephalic process longer in relation to the length of the abdomen, and with its apex sanguineous, colour and markings of the tegmina different, &c.

Euphria consimilis, sp. n.

Closely allied to *E. dissimilis*, Dist., from Tenasserim (Faun. Brit. Ind., Rhynch. iii. p. 211, 1906), especially by the distinct coloration of the pro- and mesonota, but differing in the wings, which have the apical fourth ochraceous, spotted with white, the face much more strongly carinate, both centrally and marginally; cephalic process extending to about middle of pronotum, in *dissimilis* it extends to the, or near to the, posterior margin; tegmina beneath paler and more sanguineous than in *P. dissimilis*.

Long., excl. tegm., 20–24 mm.; exp. tegm. 62–76 mm.

Hab. Indo-China (*A. Vuillet*, type Brit. Mus.).

Subfam. *EURYBRACHYDINÆ*.*Eurybrachys mysorensis*, sp. n.

Head, pronotum, and mesonotum shining olivaceous green; eyes ochraceous; abdomen above sanguineous, with transverse black segmental margins, apically thickly furnished with waxy-white efflorescence; face dark olivaceous green, transversely paler olivaceous green before clypeus, which is blackish; sternum and abdomen sanguineous, the latter with transverse black segmental fasciæ; legs black; tegmina with about basal three-fourths olivaceously virescent, crossed by two paler transverse fasciæ, apical fourth dull greyish green; wings with basal two-thirds sanguineous, apical third greyish white; head (including basal area of face), pronotum, and mesonotum finely obscurely wrinkled, and faintly minutely darkly speckled; rostrum mutilated in type; posterior tibiæ with five spines.

Long., excl. tegm., 9 mm.; exp. tegm. 21 mm.

Hab. Mysore; Bababudin Hills (*Bainbrigge-Fletcher*, Brit. Mus.).

Eurybrachys fletcheri, sp. n.

Head, pronotum, and mesonotum more or less bright olivaceous green; abdomen above purplish red, apically thickly furnished with waxy-white efflorescence; face emerald-green; clypeus fuscous brown; body beneath and legs purplish red, intermediate and posterior tibiæ blackish; tegmina virescent, more or less obscurely spotted with greyish white, the basal area somewhat emerald-green, remaining area duller and paler, two transverse black fasciate spots near base, not reaching claval area; a transverse greyish-white fascia near apex, preceded by a black spot on inner margin; wings greyish white, with two black apical spots; head moderately concavely excavate between the eyes; posterior tibiæ with five spines.

Long., excl. tegm., 11 mm.; exp. tegm. 25 mm.

Hab. Madras Prov.; Shevaroy Hills, 4500 ft. (*Bainbrigge-Fletcher*, Brit. Mus.).

Eurybrachys rubro-ornata, sp. n.

Head, pronotum, and mesonotum ochraceous; mesonotum obscurely spotted, its apex and exposed area of metanotum purplish red; abdomen above bright ochraceous, the segmental margins spotted with greyish white; face ochraceous;

clypeus, sternum, and legs purplish red, intermediate and posterior tibiæ black; abdomen beneath bright ochraceous, with central transverse spots and the apex black; tegmina ochraceous, with a large central, basal, longitudinal, purplish-red spot, a subapical greyish transverse fascia united with a brownish apical margin; wings greyish white, with a prominent black spot on upper margin near apex; vertex (including eyes) about as broad as pronotum; face considerably broader than long, the lateral angles subacute; posterior tibiæ with five spines.

Long., excl. tegm., 11 mm.; exp. tegm. 25 mm.

Hab. S. India; Yercaud (*T. V. Campbell*).

Messena albifasciata, sp. n.

Head, pronotum, and mesonotum testaceous, with irregular darker markings; face and clypeus as above, but paler and more brightly marked; abdomen sanguineous; sternum and legs ochraceous, with black markings; tibiæ darker and more or less black; tegmina with about basal two-thirds (not reaching costal margin and narrowed outwardly) testaceous, irregularly marked and spotted with black, the claval area dull ochraceous, spotted and marked with black, remaining area greyish white with the venation ochraceous, a large subapical transverse ochraceous spot with black markings, preceded by two similar spots, but smaller in size, and a submarginal series of small black spots; wings pale fuliginous, the apical area black crossed by an oblique white fascia, the apical margin also white; posterior tibiæ with six spines.

Long., excl. tegm., 9 mm.; exp. tegm. 34 mm.

Hab. Nilgiri Hills; Hillgrove, 4000 ft. (Brit. Mus.).

Allied to *M. sinuata*, Atkins. The specimen was received from Mr. T. Bainbrigge-Fletcher.

Subfam. *DICTYOPHARINÆ*.

Dictyophara coimbatorensis, sp. n.

Body and legs virescent; in one specimen the head is wholly ochraceous, in another the apex only is of that colour; tegmina and wings hyaline, the first without any macular markings; head about as long as pre- and mesonota together, slightly narrowed and upturned at apex, the lateral margins strongly ridged; face tricarinate, the lateral carinations converging anteriorly and not extending posteriorly beyond the eyes; clypeus centrally carinate; pronotum and mesonotum tricarinate, posterior tibiæ with four spines.

Long., excl. tegm., 7-9 mm. ; exp. tegm. 16-19 mm.

Hab. South India ; Coimbatore (*Bainbrigg-Fletcher*, Brit. Mus.).

Closely allied to *D. cummingi*, Dist., but with the lateral pronotal carinations less oblique, the face more apically narrowed, different colour, &c.

NEOPUTALA, gen. nov.

Allied to *Putala*, Melich., but differing by having the anterior femora more flattened and dilated, and with a more or less distinct blunt spine near apex.

Type, *N. (Putala) lewisi*, Dist., from Japan.

Neoputala capitata, sp. n.

Head and thorax above castaneous brown, a small ochraceous spot at the apex of cephalic process, abdomen above black, the posterior segmental margins, a central longitudinal continuous series of spots, and a number of small linear markings ochraceous ; abdomen beneath as above, but without the central longitudinal spots ; femora brownish, mottled with ochraceous, their apices a little darker, tibiæ ochraceous, the anterior tibiæ annulated with brownish ; rostrum slightly passing posterior coxæ ; head (including cephalic process) about as long as intermediate tibiæ, abdomen above more or less distinctly broadly centrally sulcate ; anterior femora sulcate beneath, with a distinct blunt spine near apex ; head beneath centrally and marginally carinate, the apex of the cephalic process both above and beneath a little convexly broadened and spatulate ; tegmina and wings hyaline, very slightly fuliginous, the venation black, tegmina with a large black stigmatal spot, a little more than apical third reticulately veined ; wings with distinct apical cells.

Long., excl. tegm., 16 mm. ; exp. tegm. 22 mm.

Hab. Indo-China (*R. Vivalis de Salvaza*, type Brit. Mus.).

AWARAMADA, gen. nov.

Head longly, strongly, porrectly produced, above a little convexly raised and strongly, centrally, longitudinally carinate, lateral margins also carinate, apex truncate, beneath with a small subapical tubercle, the face slightly laterally concavely sinuate, angularly amplified behind eyes, two longitudinal central carinations which are united anteriorly and posteriorly, clypeus robustly centrally carinate ; rostrum passing the posterior coxæ ; pronotum a little shorter than

mesonotum, the disk straightly tricarinate, strongly deflected on each lateral area, lateral basal margins oblique; mesonotum tricarinate, posteriorly, centrally, angulately produced; abdomen shorter than head, pronotum, and mesonotum together, centrally longitudinally ridged; anterior femora unarmed, posterior tibiæ with three strong spines; tegmina nearly four times as long as broad, apical area with three transverse series of longitudinal cells, clavus without a transverse vein; wings about three-fourths the length of tegmina, with a series of apical and two prominent antepical cells.

Awaramada fryeri, sp. n.

Body and legs fuscous brown, head beneath, sternum, and legs a little paler; tegmina slightly infuscate, the venation fuscous brown, the stigma and an apical elongate spot fuscous brown; wings paler than tegmina, the venation and an apical spot fuscous brown; pronotum with some darker punctate spots, posterior angle of mesonotum dull ochraceous; abdomen above mottled with ochraceous; lateral areas of face finely spotted with brown; clypeus with the central carination and the lateral margins pale ochraceous; structural characters as in generic diagnosis.

Long., excl. tegm., $12\frac{1}{2}$ – $13\frac{1}{2}$ mm.; exp. tegm. 28–30 mm.

Hab. Ceylon; Kandy (*J. C. F. Fryer*, Brit. Mus.).

Subfam. *DERBINÆ*.

Genus *PHENICE*.

Phenice, Westw. Tr. Linn. Soc. Lond. xix. p. 10 (1842)

Assamia, Buckt. Ind. Mus. Notes, iv. p. 1 (1896).

Proutista, Kirk. Entomologist, 1904, p. 279.

Sardis, Kirk. Rep. Exp. Stat. Haw. Plant. Assoc. pt. ix. p. 426 (1906).

Phenice fritillaris.

Derbe fritillaris, Boh. Vet.-Ak. Handl. 1837, p. 227, t. vii. fig. 8 (1838).

This well-known West-African species has now been received from Nyasaland, Mt. Mlanje, 4000 ft. (*S. A. Neave*, Brit. Mus.).

Phenice nealei, sp. n.

Vertex of head and antennæ ochraceous; eyes black; pronotum testaceous, with paler mottlings, the central ridge and posterior margin greyish; pronotum testaceous, the carinations pale ochraceous; abdomen above brownish ochraceous, finely spotted with white, body beneath and legs more

or less ochraceous and finely greyishly pubescent; tegmina pale fuscous brown, the venation sanguineous, basal third of costal area and the claval area greyishly pubescent, the first also with about four fuscous spots, apical third of costal area, and the apical and posterior marginal areas distinctly spotted with white, the lower central transverse veins distinctly infuscated; wings pale fuscous brown, the central transverse veins infuscated; vertex of head projecting in front of eyes; second joint of antennæ scarcely longer than head; mesonotum convex, somewhat compressed, tricarinate; legs slender, posterior tibiæ with a single spine and with their apices and a subapical annulation black.

Long., excl. tegm., 4 mm.; exp. tegm. 20 mm.

Hab. S. Nigeria (*Dr. A. E. Neale*, Brit. Mus.); Gold Coast (*A. B. Evans*, Brit. Mus.).

Phenice majuscula, sp. n.

Body above dull dark castaneous; vertex of head ochraceous, pale castaneous at base; mesonotal ridges ochraceous; abdomen above centrally longitudinally ochraceous; sternum testaceous, abdomen beneath dull dark castaneous; legs very pale ochraceous; tegmina fuliginous, mottled with white, costal area white, with the veins there sanguineous, and with large subquadrate fuliginous spots, a large white spot at apex, and a series of smaller white spots on posterior margin; the other white mottlings are irregular, numerous, and discal, and the short transverse veins are distinctly darker fuliginous; wings pale fuscous, the veins darker; antennæ with the second joint short, pale, scarcely as long as head; vertex produced in front of eyes, its lateral margins strongly ridged; mesonotal carinations robust; face long, narrow, its lateral margins strongly ridged; wings about half as long as tegmina.

Long., excl. tegm., 4 mm.; exp. tegm. 25 mm.

Hab. Port. E. Africa; Valley of Kola River, near E. Mt. Chipirone, 1500-2000 ft. (*S. A. Neave*, Brit. Mus.).

Genus ZORAIDA.

Thracia, Westw. Trans. Linn. Soc. Lond. xix. p. 10 (1842), non præoc.

Zoraida, Kirk. Entomologist, 1900, p. 242, n. nom.

Zoraida nyasensis, sp. n.

Body and legs brownish ochraceous; tegmina pale hyaline, the veins concolorous, costal area fuscous and here the veins

are sanguineous; wings hyaline, the upper veins sanguineous; second joint of the antennæ ochraceous, its apex black, longer than head and pronotum together; vertex of head slightly testaceous, projecting in front of eyes, its apex not bifurcate; mesonotum triearinate, its apex greyishly tomentose; face narrow, testaceous; tegmina with the apices truncate.

Long., excl. tegm., 5 mm.; exp. tegm. 30 mm.

Hab. Nyasaland; Mlanje (*S. A. Neave*, Brit. Mus.).

Allied to the West-African species *Z. sinuosa*, Boh., but excluding the fuscous costal area; the tegmina are entirely hyaline, with the veins concolorous; the veins in the fuscous costal area sanguineous; wings with the costal veins sanguineous, remaining veins concolorous with the hyaline area.

Zoraida pattersoni, sp. n.

Body above and abdomen beneath castaneous brown; sternum and legs ochraceous; tegmina fuliginous, the veins darker and moderately spotted with ochraceous, the costal area dark fuliginous, the apical area much paler with the veins greyish, minutely spotted with fuliginous, the apical margin with large fuliginous spots and the marginal area of the apex itself with a double series of small fuliginous spots; before middle of inner margin an oblique pale spot reaching middle of tegmen; wings very pale fuliginous, with the veins darker; antennæ brownish ochraceous, the second joint much longer than head and pronotum together; vertex of head a little projecting beyond eyes, its margins carinate, its apex moderately bifurcate; mesonotum triearinate.

Long., excl. tegm., 6 mm.; exp. tegm. 30 mm.

Hab. Gold Coast; Aburi (*W. H. Patterson*, Brit. Mus.).

Allied to *Z. bohemani*, Westw., which I have not seen, but a much larger species, tegmina without the sanguineous costal veins, and coloration and markings different.

Zoraida flavocostata, sp. n.

Body and legs ochraceous; tegmina very pale brownish-ochraceous, with opaline lustre, costal area flavescent, with its basal third of costal margin narrowly blackish, veins black, a small black spot at apex, and a still smaller one above apex of clavus; wings pale ochraceous; antennæ with the second joint flavescent, much longer than head and pronotum together, vertex triangular, moderately projecting in front of eyes, which are black; mesonotum moderately

tricarinate; face long and narrow, about as long as clypeus; wings very small, about as long as apical margin of tegmen.

Long., excl. tegm., 5 mm.; exp. tegm. 32 mm.

Hab. Port. E. Africa; Ruw Valley (*S. A. Neave*, Brit. Mus.).

Zoraida ugandensis, sp. n.

Body above pale fuscous brown; vertex of head, pronotum, mesonotal carinations, body beneath, and legs ochraceous; tegmina hyaline, with opaline lustre, the veins very pale ochraceous, most of the short transverse veins, the bases of the longitudinal veins, and a short basal area dark fuliginous, costal area pale stramineous, apices of the veins to apical areas minutely dark fuliginous; wings hyaline, the apices of the veins to apical areas minutely dark fuliginous; second joint of antennæ stramineous, its apex black, considerably longer than head and pronotum together; vertex of head triangular, projecting beyond eyes; face narrow, slightly shorter than clypeus; wings about as long as greatest breadth of tegmen.

Long., excl. tegm., 6 mm.; exp. tegm. 30 mm.

Hab. Uganda Prot., Banks of Victoria Nile, near Masindi Port, 3400 ft. (*S. A. Neave*, Brit. Mus.).

Zoraida picturata, sp. n.

Head, pronotum, and mesonotum dull shining ochraceous, the vertex of head and mesonotal carinations a little paler; abdomen darker, with its apex sanguineous; sternum and legs pale ochraceous; face pale ochraceous; clypeus testaceous, its apex black; tegmina hyaline mottled with fuscous, about basal third of costal margin narrowly bright greyish, veins on costal area sanguineous, the principal fuscous markings are linear, longitudinal spots on costal margin, nearly the whole space between the two lower sanguineous veins, three large reversed subtriangular spots beneath the lower sanguineous vein, two apical transverse series of small spots, pale mottlings on lower half, and posterior marginal spots; wings very pale fuliginous, a small dark discal spot and another on posterior margin; vertex triangular, projecting beyond eyes, which are castaneous; face narrow, shorter than clypeus; second joint of rostrum ochraceous, longer than head and pronotum together; mesonotum moderately tricarinate; wings about half the length of tegmina.

Long., excl. tegm., 4 mm.; exp. tegm. 24 mm.

Hab. Nyasaland; Mt. Mlanje (*S. A. Neave*, Brit. Mus.).

Zoraida evansi, sp. n.

Head, pronotum, and mesonotum ochraceous, vertex of head and mesonotal carinations paler; abdomen pale testaceous with darker mottlings, its apex ochraceous; sternum and legs ochraceous, the first more or less greyishly pilose; tegmina pale greyish, subhyaline, the veins brownish ochraceous, costal area with a long basal longitudinal brownish spot containing an upper greyish line, a large subapical brownish spot containing four or five prominent smaller greyish spots, a central discal spot with a small internal grey spot, and a series of small brown spots on the posterior and apical margins; the smaller transverse veins are also distinctly fuscous; wings pale fuliginous, the veins brownish, a small dark spot on anal area, which is greyish; second joint of antennæ ochraceous, much longer than head and pronotum together; vertex triangular, projecting in front of eyes; face narrow, shorter than clypeus; mesonotum rather prominently tricarinate; wings about half the length of tegmina.

Long., excl. tegm., 3 mm.; exp. tegm. 22 mm.

Hab. Gold Coast (*A. E. Evans*, Brit. Mus.).

Zoraida vuilleti, sp. n.

Body pale fuscous; legs very pale ochraceous; mesonotal carinations obscurely greyish; tegmina hyaline, the veins fuliginous, base, costal area, and apex irregularly piceous, the first containing about four hyaline spots, the costal margin some five small opaque pale spots near apex, and a large hyaline spot at apex containing three or four brownish dots, posterior margin narrowly fuscous; wings pale fuliginous, the veins fuscous; second joint of antennæ fuscous, its apex paler, much longer than head and pronotum together; vertex triangular, the apex broad, projecting beyond eyes; face narrow, about as long as clypeus; wings slightly passing apex of tegminal clavus.

Long., excl. tegm., 4 mm.; exp. tegm. 22 mm.

Hab. Indo-China (*A. Vuillet*, type in Brit. Mus.).

Zoraida histrionica, sp. n.

Vertex and pronotum pale ochraceous, the latter with two central oblique black lines; mesonotum pale brownish, with narrow margins and fasciate carinal markings pale ochraceous; scutellum purplish brown, with a central longitudinal greyish line; abdomen ochraceous, above thickly mottled

Ann. & Mag. N. Hist. Ser. 8. Vol. xiii. 29

with castaneous, beneath more or less broadly segmentally fasciated with that colour; sternum and legs ochraceous; tegmina hyaline, the venation fuscous, costal area flavescens, containing a piceous spot beyond middle and another near apex, apical margin narrowly piceous, and with a piceous spot at apex of clavus; wings slightly tinted with ochraceous; second joint of antennæ ochraceous, its apex testaceous, considerably larger than head and pronotum together; vertex triangular, slightly projecting beyond eyes; wings very small, about as long as apical margin of tegmina; face narrow, about as long as clypeus.

Long., excl. tegm., 5 mm.; exp. tegm. 25 mm.

Hab. East Himalayas (Brit. Mus.).

This species is allied to *Z. ephemeralis*, Walk., from the Papuan Islands.

ZORAIDOIDES, gen. nov.

Head much narrower than pronotum, vertex narrow, its lateral margins prominently ridged, their apices subacute; eyes large, obliquely directed along the lateral margins of the pronotum; face long, narrow, the lateral margins strongly ridged and slightly undulate, divergent before the clypeus, which is tricarinate and only slightly shorter than the face; antennæ with the second joint very long, longer than the head and pronotum together; pronotum short, centrally tricarinate, the lateral areas extending backwardly and obliquely over the lateral margins of the mesonotum, its margins ridged; mesonotum obscurely tricarinate; abdomen short and robust; legs slender, posterior tibiæ with a distinct spine; tegmina elongate, more than three times longer than broad, their apices subtruncate, five costal areas, four central basal areas, a series of twelve areas from apex to posterior inner margin, and two central subapical areas (the outermost small) beneath the fifth costal area; wings very short, somewhat imperfect in the unique typical specimen.

Zoraidoides malabarensis, sp. n.

Body castaneous; eyes black; central carinations to mesonotum and macular markings to pronotum pale ochraceous; face pale ochraceous, spotted with castaneous; second joint of antennæ dull ochraceous, its apex pale testaceous; legs greyish white; tegmina and wings hyaline, the first with the costal marginal area ochraceous, excepting above the first and second costal areas, where it is hyaline, veins obscure ochraceous; wings with the veins brownish ochraceous; structural characters as in generic diagnosis.

Long., excl. tegm., 5 mm.; exp. tegm. 26 mm.

Hab. Malabar; Taliparamba (*T. B. Fletcher*, Brit. Mus.).

This specimen was found on "Pepper."

Genus DIOSTROMBUS.

Diostrombus, Uhler, Proc. Nat. Mus. U.S. 1896, p. 233; Muir, Bull.

Exp. Stat. Haw. Plant. Assoc. 1913, p. 80.

Drona, Dist. Faun. Brit. Ind., Rhynch. iii. p. 305 (1906).

Type, *D. politus*, Uhler (from Japan).

Mr. Muir states that he has seen a cotype of *Diostrombus* from the U.S. Nat. Museum, and has found it congeneric with my *Drona*. I accept his decision, and amend the nomenclature accordingly. The species I now know are:—

D. politus, Uhler. Japan.

D. carnosus (*Derbe*, *Phenice*?), Westw., and *D. (Drona) pennatus*, Dist. Brit. India.

The Ethiopian species are as follows:—

D. (Derbe) lanius, Stål. Caffraria.

D. (Drona) grahami, Dist. Ashanti; Nyasaland, Mt. Mlanje (*S. A. Neave*).

D. (Thracia) apicalis, Hagl. Congo.

D. gowdeyi, Dist. Uganda.

Diostrombus gowdeyi, sp. n.

Body shining black; eyes and posterior margin of mesonotum ochraceous; abdomen above and body beneath more or less cretaceously tomentose; legs ochraceous, the femora, apices of tibiæ, and the tarsi piceous; tegmina and wings hyaline, slightly tinted with brownish ochraceous, venation black or piceous; vertex moderately produced in front of eyes, the apex bifurcate; face narrow, laterally ridged; clypeus large, tricarinate, the lateral carinæ somewhat obscure; mesonotum large, convex, smooth, glossy, non-carinate; abdomen in the male furnished apically with a pair of long forceps-like anal appendages; tegmina with the costal membrane possessing three oblique transverse veins on its apical half, upper ulnar area with a transverse vein near middle; second joint of antennæ about as long as head.

Long., excl. tegm., 4-4½ mm.; exp. tegm. 19-22 mm.

Hab. Uganda (*C. C. Gowdey*, Brit. Mus.).

Phra pictipennis, sp. n.

Body above pale tawny brown; mesonotum with two central linear fasciæ and a large spot on each lateral area dull castaneous brown, margins narrowly greyish white; body beneath and legs pale ochraceous, base of abdomen black where the segmental margins are greyish white; tegmina pale, creamy semihyaline, much mottled with very pale fuscous, three or four linear longitudinal black spots in costal area, apical veins more or less suffused with blackish, three rounded black spots on basal third and three blackish spots on inner margin; wings white, semihyaline, the veins darker.

Allied to *P. amplificata*, Dist., from Ceylon, but with the vertex of head slightly shorter and considerably more concave; the amplified mesonotal margins much broader and less spinous, markings of the tegmina distinct, &c.

Long., excl. tegm., $3\frac{1}{2}$ mm.; exp. tegm. 18 mm.

Hab. U. P. Brit. India, Bankatti (*A. D. Imms*, Brit. Mus.).

“Under bark and in rotten wood of standing Sal.”

Subfam. *RICANINÆ*.*Pochazia pipera*, sp. n.

Head and pronotum brownish ochraceous, mesonotum black, exposed margins of metanotum ochraceous; abdomen testaceous; body beneath and legs ochraceous; tegmina pale bronzy brown, two pale transverse lines before apex and a much inwardly angulated line near middle, from this line to base the surface is much mottled with small paler and darker spots, a small black spot near apical angle and a subtriangular pale spot near apex of costal membrane; wings very pale bronzy brown; mesonotum with five carinate lines, the central one straight, on each side of which is an inwardly and anteriorly curved line which bifurcates near middle; apical margin of tegmina larger than inner margin; face broad, centrally carinate, the carination becoming almost obsolete towards clypeus; posterior tibiæ with two spines.

Long., excl. tegm., 6 mm.; exp. tegm. $19\frac{1}{2}$ mm.

Hab. Malabar Distr., Taliparansbas (*T. Bainbrigge-Fletcher*, Brit. Mus.).

“On Pepper plant.”

Subfam. FLATINÆ.

Pulastya abbreviata, sp. n.

Body more or less virescent (ochraceous in faded specimens); legs pale ochraceous; tegmina pale virescent or pale ochraceous, the apical third of costal margin, the whole of apical margin, and the greater part of posterior margin very narrowly but closely spotted with brownish; wings creamy white; head moderately conically produced; pro- and mesonota longitudinally tricarinate; tegmina about twice as long as broad, the posterior angle not or scarcely angulately produced.

Long., excl. tegm., 8-9 mm.; exp. tegm. 23-25 mm.

Hab. Indo-China (*R. Vitalis de Salvaza*, type in Brit. Mus.).

Allied to *P. acutipennis*, Kirby, from Brit. India, but differing by the non-produced posterior angles of the tegmina.

Satapa tuberculosa, sp. n.

Body and legs dull dark ochraceous; mesonotum fuscous brown; abdominal segmental margins and lateral areas of sternum greyishly tomentose; tegmina pale tawny brown, two prominent dark spots on costal membrane and another near apex, the apical half much mottled with darker markings, the costal membrane finely granulose near base, a median series of granules, and about three distinct tubercles a little before middle, one also on the claval area; wings pale fuliginous, the venation darker.

Long., excl. tegm., 5½ mm.; exp. tegm. 13 mm.

Hab. S. India; Coimbatore (*T. Bainbrigge-Fletcher*, Brit. Mus.).

Allied to *S. sicula*, Dist., from Ceylon, but differing in the tuberculated tegmina, the posterior angles of the tegmina more produced, &c.

PARAGOMEDA, gen. nov.

Head longer than breadth between eyes, narrowed anteriorly; face considerably longer than broad, obliquely narrowed at base, centrally carinate; pronotum shorter than vertex, centrally finely carinate, its lateral margins laminate; mesonotum tricarinate; tegmina about twice as long as broad, with the costal membrane very strongly arched and convex, moderately sinuate before apex, apical margin truncate, the apical and posterior angles not rounded, posterior

margin slightly sinuate, costal membrane scarcely or very little wider than radial area, venation generally as in *Gomeda*; wings very little broader than tegmina.

Allied to *Gomeda*, Dist., but separated by the different-shaped and more produced vertex of head, the strongly arched and convex costal membrane, and the angulate apical and posterior tegminal angles, &c.

Type, *P. typica*, Dist.

Paragomeda typica, sp. n.

Body above and beneath ochraceous, the legs paler, the abdomen above basally and apically cretaceously tomentose; tegmina pale ochraceous, sparingly spotted with brownish, the apical cells brownish, preceded by a similar series of transverse brownish spots; wings creamy white; structural characters as in generic diagnosis.

Long., excl. tegm., $4\frac{1}{2}$ mm.; exp. tegm. $12\frac{1}{2}$ mm.

Hab. S. India; Nandidrug (*T. V. Campbell*, Brit. Mus.).

Paragomeda viridis, sp. n.

Head, pronotum, and mesonotum virescent; abdomen, body beneath, and legs ochraceous; tegmina virescent, the margins very narrowly pale ochraceous, the apical margin minutely spotted with pale brownish, and a few scattered minute brownish spots on disk; wings creamy white; vertex only slightly longer than pronotum, which is centrally carinate; mesonotum tricarinate.

Long., excl. tegm., $3\frac{1}{2}$ mm.; exp. tegm. $12\frac{1}{2}$ mm.

Hab. S. India; Nandidrug (*T. V. Campbell*).

A single carded specimen of this species allows no further description than the above.

Atracis clypeata, sp. n.

Body above pale greenish ochraceous; vertex with two small spots at apex and the lateral margins near eyes black; mesonotum with somewhat large linear black spots forming two broken anteriorly converging fasciæ; abdomen above with two dark basal spots and three pale greenish longitudinal fasciæ, one central, the other two lateral; face with some small black marks near anterior margin, clypeus with two central brown fasciæ united posteriorly; legs ochraceous; tegmina opaque, greyish, with a slightly greenish tint, a few small black spots near base, and some other

mostly linear on apical area, the veins greenish ochraceous; wings creamy white, the veins greenish ochraceous; vertex about as long as the pronotum, centrally longitudinally incised, foveate, with the lateral margins strongly recurved; lateral margins of the pronotum moderately recurved; face longer than broad, narrowed anteriorly, lateral margins strongly recurved; tegmina with the costal membrane about three times as wide as radial area.

Long., excl. tegm., 11 mm.; exp. tegm. 32 mm.

Hab. Ceylon (*J. C. Fryer*, Brit. Mus.).

Atracis nalandensis, sp. n.

Body above dull brownish mottled with darker markings, the mesonotum with two discal, longitudinal, anteriorly converging black fasciæ; abdomen with two basal excavated black spots; face and clypeus somewhat more palely ochraceous, the first with its anterior area more or less speckled with black; tegmina ochraceous, irregularly speckled and spotted with black (these markings vary in different specimens); wings pale fuliginous, a little paler on central area; vertex about as long as pronotum, distinctly foveate, the lateral margins strongly recurved; pronotum with the lateral margins also strongly recurved; face considerably longer than broad, narrowed anteriorly, the lateral margins strongly recurved; clypeus finely, darkly, transversely striate; tegmina with the costal membrane more than twice as broad as radial area.

Long., excl. tegm., 12 mm.; exp. tegm. 33 mm.

Hab. Ceylon; Nalanda (*Atkins Coll.*, Brit. Mus.). Assam; Margherita (*Doherty*).

Atracis dissimilis, sp. n.

Body above greenish ochraceous; abdominal segmental margins a little paler; legs ochraceous; tegmina greyish ochraceous, opaque, with some small ill-defined darker spots, of which the largest are two in vertical series near base and another on apical area; wings creamy white; vertex slightly longer than pronotum, strongly, centrally, longitudinally incised, the lateral margins recurved; pronotum centrally longitudinally ridged, the lateral margins recurved; mesonotum somewhat crushed and mutilated in typical specimen; abdomen above centrally longitudinally carinate; face with the apex distinctly darker, centrally longitudinally carinate, longer than broad, the lateral margins moderately convex and

recurved; clypeus with brownish oblique striations on each lateral area; tegmina with the costal membrane three times as broad as radial area.

Long., excl. tegm., 11 mm.; exp. tegm. 28 mm.

Hab. S. Mysore; Goorghalli Estate (*Bainbrigge-Fletcher*, Brit. Mus.).

XLVIII.—*Descriptions and Records of Bees.*—LVIII.

By T. D. A. COCKERELL, University of Colorado.

Anthophora curta, Provancher.

El Paso, Texas, at yellow flowers of a species of Compositæ, Nov. 7, 1913, 4 ♀ (*P. H. Timberlake*, 2).

Of these, two are typical *curta*, while two have the hair on inner side of hind basitarsi rather dark ferruginous. These latter are clearly *curta*, not *A. peritomæ*.

Tetralonia poetica, sp. n.

♂.—Length about 12 mm.

In my table in *Trans. Amer. Ent. Soc.* xxxii. p. 79, runs out at 4, because yellow of clypeus is not notched at sides; except for this character it runs to *T. frater* (Cress.) on p. 80, to which it is very closely allied. It differs from *T. frater* (a co-type from Colorado compared) by the clypeal yellow being pale lemon instead of almost orange, its upper border arched, leaving the upper and lateral margins of the clypeus broadly black; face broader; hair of thorax above more strongly ochreous; apical plate of abdomen broader; last ventral segment with the oblique submarginal ridges straight or nearly (curved in *frater*), and apical corners of segment prominent (not so in *frater*).

I thought this might be the male of *T. virgata* (Ckll.), but the b. n. in *virgata* squarely meets the t.-m., whereas in *poetica* it falls short of it.

Hab. Whittier, California, at flowers of *Convolvulus*, April 14, 1912, 3 ♂ (*P. H. Timberlake*, 3).

Perdita hypoxantha, sp. n.

♂.—Length $3\frac{1}{2}$ –4 mm.

Very close to *P. gutierreziae*, Ckll., differing as follows:—Upper level of yellow on front practically straight, except a